

ABSTRACT

[0031] A seismic acquisition system comprising a remote-controlled buoy for conducting seismic acquisition operations. The buoy comprises an operating system for operating a seismic wave production device on the buoy, a placement system, a communications system, and dynamic position locating system. The seismic acquisition system also comprises a remote control system for controlling the buoy systems. The seismic acquisition system also comprises receivers for receiving the seismic wave and generating a data signal indicative of the received seismic wave. The seismic acquisition system operates by controlling the placement system with the remote control system to position the buoy and then controlling the operating system with the remote control system to produce a seismic wave from the seismic wave production device. The receivers then receive the seismic wave and generate a data signal indicative of the seismic wave. The time of producing the seismic wave as well as the position of the buoy at the time of production are then analyzed with the data signal by a data processor.